

Applicant : Charles P. McShane et al.
Serial No. : 10/619,893
Filed : July 15, 2003
Page : 3 of 12

Attorney's Docket No.: 08215-301003 / P06-023937

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1 – 132. (canceled).

133. (Currently Amended) A transformer including a housing that contains a transformer core/coil assembly, comprising:

a dielectric fluid surrounding said core-coil assembly, wherein the dielectric fluid consists of a one or more vegetable oil oils and ~~an~~ one or more antioxidant ~~compound~~ compounds, and wherein the one or more vegetable oil ~~has~~ oils have a viscosity of between 2 and 15 cSt at 100°C and less than 110 cSt at 40°C, and wherein the dielectric fluid is environmentally safe.

134. (Currently Amended) The transformer of claim 133, wherein the one or more antioxidant ~~compound~~ is compounds ~~are~~ selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butylhydroxyquinone (TBHQ), tetrahydroxybutrophenone (THBP), ascorbyl palmitate, propyl gallate and alpha-, beta- or delta-tocopherol.

135. (Currently Amended) The transformer of claim 134, wherein the dielectric fluid further ~~comprises~~ consists of at least one of a low temperature additive and an antimicrobial additive.

136. (Currently Amended) A transformer including a tank housing a transformer core/coil assembly, comprising:

a dielectric fluid surrounding said core-coil assembly, wherein the dielectric fluid consists of ~~an~~ one or more ~~olcate~~ modified vegetable oil oils and ~~an~~ one or more antioxidant ~~compound~~ compounds, and wherein the one or more vegetable oil ~~has~~ oils have a viscosity of between 2 and

Applicant : Charles P. McShane et al.
Serial No. : 10/619,893
Filed : July 15, 2003
Page : 4 of 12

Attorney's Docket No.: 08215-301003 / P06-023937

15 cSt at 100°C and less than 110 cSt at 40°C, and wherein the dielectric fluid is environmentally safe.

137. (Currently Amended) The transformer of claim 136, wherein the one or more antioxidant ~~compound is~~ compounds are selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butylhydroxyquinone (TBHQ), tetrahydroxybutrophenone (THBP), ascorbyl palmitate, propyl gallate and alpha-, beta- or delta-tocopherol.

138. (Currently Amended) The transformer of claim 137, wherein the dielectric fluid further ~~comprises~~ consists of at least one of a low temperature additive and an antimicrobial additive.

139. (Currently Amended) A transformer including a tank housing a transformer core/coil assembly, comprising:

a dielectric fluid surrounding said core-coil assembly, wherein the dielectric fluid consists of a base oil and additives that increase the functional properties of the base oil, the base oil consisting of a one or more vegetable ~~oil~~ oils having a viscosity of between 2 and 15 cSt at 100°C and less than 110 cSt at 40°C, and the additives selected from the group consisting of an one or more antioxidant ~~compound~~ compounds, a low temperature additive and an antimicrobial additive.

140. (Currently Amended) The transformer of claim 139, wherein the one or more antioxidant ~~compound is~~ compounds are selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butylhydroxyquinone (TBHQ), tetrahydroxybutrophenone (THBP), ascorbyl palmitate, propyl gallate and alpha-, beta- or delta-tocopherol.

141. Canceled

142. (Currently Amended) A transformer including a housing that contains a transformer core/coil assembly, comprising:

a dielectric fluid surrounding said core-coil assembly, wherein the dielectric fluid consists of a one or more vegetable ~~oil~~ oils with a viscosity of between 2 and 15 cSt at 100°C, and less

Applicant : Charles P. McShane et al.
Serial No. : 10/619,893
Filed : July 15, 2003
Page : 5 of 12

Attorney's Docket No.: 08215-301003 / P06-023937

than 110 cSt at 40°C and ~~an~~ one or more antioxidant ~~compound~~ compounds; and wherein the dielectric fluid has: (a) a minimum dielectric breakdown of greater than or equal to 30 kV; (b) a fire point of greater than 300°C; and (c) a pour point between -15 and -25°C.

143. (Currently Amended) The transformer of claim 142, wherein the one or more antioxidant ~~compound is~~ compounds are selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butylhydroxyquinone (TBHQ), tetrahydroxybutrophenone (THBP), ascorbyl palmitate, propyl gallate and alpha-, beta- or delta-tocopherol.

144. (Currently Amended) The transformer of claim 143, wherein the dielectric fluid further ~~comprises~~ consists of a least one of a low temperature additive and an antimicrobial additive.

145. (Currently Amended) The transformer of claim 142, wherein the one or more vegetable ~~oil is~~ oils are an oleate modified vegetable ~~oil~~ oils.

146-153. Canceled

154. (Currently Amended) A method of using a transformer including a housing that contains a transformer core/coil assembly, comprising: employing in the transformer a dielectric fluid surrounding said core-coil assembly, wherein the dielectric fluid consists of a base oil and additives that increase the functional properties of the base oil, the base oil consisting of a one or more vegetable ~~oil~~ oils having a viscosity of between 2 and 15 cSt at 100°C and less than 110 cSt at 40°C, and the additives selected from the group consisting of ~~an~~ one or more antioxidant ~~compound~~ compounds, a low temperature additive and an antimicrobial additive.

155. (Currently Amended) The method of claim 154, wherein the one or more antioxidant ~~compound is~~ compounds are selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butylhydroxyquinone (TBHQ), tetrahydroxybutrophenone (THBP), ascorbyl palmitate, propyl gallate and alpha-, beta- or delta-tocopherol.

156. Canceled

Applicant : Charles P. McShane et al.
Serial No. : 10/619,893
Filed : July 15, 2003
Page : 6 of 12

Attorney's Docket No.: 08215-301003 / P06-023937

157. (Currently Amended) A method of using a transformer, comprising employing in the transformer a dielectric fluid, the dielectric fluid consisting of a one or more vegetable ~~oil~~ oils and ~~an~~ one or more antioxidant ~~compound~~ compounds, wherein the one or more vegetable oils ~~has~~ have a viscosity of between 2 and 15 cSt at 100°C and less than 110 cSt at 40°C, and wherein the dielectric fluid is environmentally safe.

158. (Currently Amended) The method of claim 157, wherein the one or more antioxidant ~~compound~~ is compounds are selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butylhydroxyquinone (TBHQ), tetrahydroxybutrophenone (THBP), ascorbyl palmitate, propyl gallate and alpha-, beta- or delta-tocopherol.

159. (Currently Amended) The method of claim 158, wherein the dielectric fluid further ~~comprises~~ consists of a least one of a low temperature additive and an antimicrobial additive.

160. (Currently Amended) A method of using a transformer, comprising employing in the transformer a dielectric fluid, the dielectric fluid consisting of ~~an~~ one or more oleate modified vegetable ~~oil~~ oils and ~~an~~ one or more antioxidant ~~compound~~ compounds, wherein the one or more vegetable oils ~~has~~ have a viscosity of between 2 and 15 cSt at 100°C and less than 110 cSt at 40°C, and wherein the dielectric fluid is environmentally safe.

161. (Currently Amended) The method of claim 160, wherein the one or more antioxidant ~~compound~~ is compounds are selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butylhydroxyquinone (TBHQ), tetrahydroxybutrophenone (THBP), ascorbyl palmitate, propyl gallate and alpha-, beta- or delta-tocopherol.

162. (Currently Amended) The method of claim 161, wherein the dielectric fluid further ~~comprises~~ consists of a least one of a low temperature additive and an antimicrobial additive.

163-174. (Canceled)

Applicant : Charles P. McShane et al.
Serial No. : 10/619,893
Filed : July 15, 2003
Page : 7 of 12

Attorney's Docket No.: 08215-301003 / P06-023937

175. (Currently Amended) A transformer including a housing that contains a transformer core/coil assembly, comprising:

a dielectric fluid surrounding said core-coil assembly, wherein the dielectric fluid consists of a one or more vegetable oil oils and an one or more antioxidant compound compounds, and wherein the one or more vegetable oils ~~has~~ have a viscosity of between 2 and 15 cSt at 100°C and less than 110 cSt at 40°C.

176. (Currently Amended) The transformer of claim 175, wherein the one or more antioxidant compound is compounds are selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butylhydroxyquinone (TBHQ), tetrahydroxybutrophenone (THBP), ascorbyl palmitate, propyl gallate and alpha-, beta- or delta-tocopherol.

177. (Previously Presented) The transformer of claim 175, wherein the dielectric fluid further consists of at least one of a low temperature additive and an antimicrobial additive.

178. (Currently Amended) The transformer of claim 175, wherein the one or more vegetable oil is an oils are oleate modified vegetable ~~oil oils~~.

179. (Currently Amended) A method of retrofilling a transformer, comprising removing an existing dielectric fluid from the transformer and replacing the existing dielectric fluid with a dielectric fluid consisting of a one or more vegetable oil oils and an one or more antioxidant compound compounds, wherein the one or more vegetable oils ~~has~~ have a viscosity of between 2 and 15 cSt at 100°C and less than 110 cSt at 40°C.

180. (Currently Amended) The method of claim 179, wherein the one or more antioxidant compound is compounds are selected from the group consisting of butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butylhydroxyquinone (TBHQ), tetrahydroxybutrophenone (THBP), ascorbyl palmitate, propyl gallate and alpha-, beta- or delta-tocopherol.

181. (Previously Presented) The method of claim 179, wherein the dielectric fluid further consists at least one of a low temperature additive and an antimicrobial additive.

Applicant : Charles P. McShane et al.
Serial No. : 10/619,893
Filed : July 15, 2003
Page : 8 of 12

Attorney's Docket No.: 08215-301003 / P06-023937

182. (Currently Amended) The method of claim 179, wherein the vegetable ~~oil is an~~
oils are oleate modified vegetable ~~oil~~ oils.

183. (Currently Amended) A transformer including a housing that contains a core/coil
assembly, comprising:

a dielectric fluid surrounding said core/coil assembly, wherein the dielectric fluid consists
of a one or more vegetable ~~oil~~ oils, an one or more antioxidant ~~compound~~ compounds and a low
temperature additive, wherein the vegetable oils ~~has~~ have a viscosity of between 2 and 15 cSt at
100°C and less than 100 cSt at 40°C, and wherein the dielectric fluid is environmentally safe.

184. (Currently Amendedd) The transformer of claim 183, wherein the
vegetable ~~oil is an~~ oils are oleate modified vegetable ~~oil~~ oils.

185. (Previously Presented) The transformer of claim 183, wherein the dielectric
fluid further consists of an antimicrobial additive.